GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

STARRED QUESTION NO:96
ANSWERED ON:02.03.2016
Disposal of Atomic Waste
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Will the Minister of ATOMIC ENERGY be pleased to state:

(a) the quantity of nuclear waste generated by the nuclear power plants, plant/year-wise during the last three years;

(b) the mechanism put in place to dispose of nuclear waste safely;

(c) the extent to which the technology used is effective and efficient;

(d) whether the Government has drawn any plan to build underground repository for storing nuclear waste with latest technology and if so, the details thereof; and

(e) whether the Government has undertaken such a programme with the support of any foreign countries and if so, the details thereof?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND IN THE PMO (DR. JITENDRA SINGH)

(a) The quantity of low and intermediate level waste to be stored at site is about 0.15 cubic meters/year/MW.

(b) A comprehensive radioactive waste management system is established taking into account the operational capability under the supervision of an independent regulatory agency. The radioactive solid wastes generated during operation and maintenance of nuclear power plants are segregated and volume reduced prior to its disposal. Disposal of waste is carried out in specially constructed structures such as stone lined trenches, reinforced concrete trenches and tile holes. These disposal systems are designed on multi-barrier principle for ensuring effective containment of radioactivity. The areas where the disposal structures are located are kept under constant surveillance with the help of bore-wells laid out in a planned manner. This policy is on par with international practices following the guidelines of International Atomic Energy Agency (IAEA).

(c) The mechanism used is very effective and efficient. The areas where the disposal structures are located are kept under constant surveillance with the help of bore-wells laid out in a planned manner. The underground soil and water samples from these bore wells are routinely monitored to confirm effective confinement of radioactivity present in the disposed waste. Till date the surveillance of the disposal areas at different sites has confirmed the high degree of effectiveness of the disposal system for containment of the disposed wastes. There has been no incident of release of radioactivity from such disposed wastes. No effect of radiation from the disposed wastes on the public or the environment has been observed.

(d) Considering the level of waste generation and the technological innovations there is no requirement of repository in the near future.

(e) The programme for India's nuclear waste management/disposal is totally indigenous and no foreign support is taken.

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